

**Substitute Abstract**

Please delete the Abstract as originally filed and replace it with the following Abstract:

A method of designing a vehicle air system is provided. This method includes the use of a computer to simulate operation of a proposed vehicle air system over a time period, wherein the proposed vehicle air system comprises an air compressor and a pneumatically operable device, and wherein the step of simulating operation of a proposed vehicle air system over a time period includes: simulating selective operation of the air compressor to add air to the proposed vehicle air system; and simulating selective operation of the pneumatically operable device to exhaust air from the proposed vehicle air system. The computer is then used to calculate a duty cycle of the air compressor over the time period and to output the duty cycle.